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OUTLOOK FOR HOGS

PRODUCTION TO RISE IN SPRING 1966

Favorable hog prices, and an expansion in production. You can't have one without the other—or so it seems.

Thus far, 1965 has been a year of the highest hog prices since 1954. That fact is hardly news to hog producers, and to quite a few other farmers who have been wishing they were in the hog business. But the reasons behind the rise in hog prices may not be so well known, and they hold the key to what will happen in 1966.

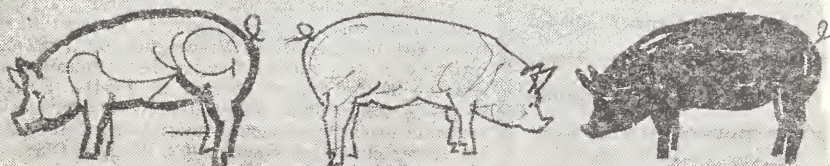
Nineteen sixty-five has also been a year of sharply reduced rates of hog slaughter, plus smaller total meat supplies and strong demand for meats.

Hog slaughter under Federal inspection was down 8 percent in the first 9 months this year. This reflects the sharp cutback in the number of pigs born during the second half of 1964 and the first half of 1965. The reduction in

farrowings was due largely to depressed hog prices (and producers' incomes) in 1963 and 1964.

In addition to smaller hog production, cold storage holdings of pork and supplies of other meats were limited this year. On September 1, pork supplies in cold storage totaled 130 million pounds, down 43 percent from a year earlier, and 31 percent below the 1959-63 average. The total supply of red meat also was reduced substantially from September 1, 1964.

Just how high are prices now compared to a year ago? The biggest part of the gain occurred in the second quarter, but the peak came in August (prices declined somewhat in September and October) when prices for barrows and gilts at eight markets averaged \$24.67; in July they were \$24.27. This is more than \$7 above the comparable figures for 1964.



The traditional indicator of prosperity, or lack of it, in the hog business is the hog-corn price ratio (the number of bushels of corn equal in value to 100 pounds of live hog). Even with somewhat higher prices for corn this year, it has ranged between 18 and 20 since last June. The average ratio was 14.1 in 1963 and 13.7 in 1964.

Ratios above 17 to 1, such as occurred in 1958 and 1960, usually accompany marked increases in hog production. The ratio during September-December this year is likely to average 18 to 1 or higher—a good indication that a substantial expansion in hog output is due in 1966.

But before the expansion in production occurs, hog prices are likely to continue to be highly profitable. In the first half of 1966 they likely will average as high or higher than in the first 6 months of 1965. Barrows and gilts at eight markets averaged \$16.68 in January-March this year and then rose to \$20.43 in April-June.

Normally, slaughter figures are the most important indicators of future hog prices. Hog slaughter rates, in turn, are largely gauged by farrowings 6 to 7 months previous. During the second half of this year, the decline in farrowings from a year earlier has been narrowing.

There were 10 percent fewer sows farrowing in the June-August period, but only 5 percent less are expected to farrow in September-November. Moreover, producers have reported they plan to farrow the same number of sows in December-February as in these months in 1964-65. On the basis of this trend in farrowings, the number of pigs born in March-May 1966 is likely to be higher than a year earlier. Some decline in corn prices this fall and the favorable hog prices expected into early 1966 will be added incentive for producers to increase farrowings.

An overall expansion of about 3 to 5 percent in the December 1965-May 1966 pig crop likely would lead to a similar rise in slaughter supplies late in 1966. With such a gain, hog prices during the last half of 1966 would probably be down only slightly from this fall.

However, if hog production next spring and summer rises 10 percent or more, slaughter supplies would be up sharply by late 1966 and into 1967. Such an increase would probably reduce prices severely in those months.

Robert L. Rizek
Economic Research Service

PIG CROP SMALLER THIS FALL

The number of hogs and pigs on farms in the 10 Corn Belt States on September 1 totaled 43,161,000 head, according to the Crop Reporting Board. This is a drop of 12 percent from a year earlier. The 10 States include Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, South Dakota, Nebraska, and Kansas.

The number of hogs and pigs being kept for breeding on farms in the 10 States totaled about 6,033,000 head on September 1. This is 4 percent less than on September 1, 1964. Other hogs and pigs (excluding those kept for breeding) came to 37,128,000 head, 13 percent below September 1, 1964.

Sows bred and intended for farrowing during September, October, and November totaled 1,970,000 head, 5 percent less than last year. All States indicated fewer farrowings than a year ago except Iowa which had about the same number.

The June-August pig crop in the 10 States totaled 14,761,000 head, 10 percent less than were farrowed during the same months in 1964. This was largely the result of a 10 percent decline in the number of sows farrowed.

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Livestock Feeding

Animal units, the number of livestock and poultry on farms weighted by feed consumption, are used by agricultural economists to measure trends in livestock feed consumption. This measure, in effect, allows economists to combine the varying amounts of feed consumed by beef cattle, dairy cattle, hogs, sheep, and poultry and average them.

During the 1964-65 feeding year (October 1-September 30), the number of grain-consuming animal units declined about 3 percent from the previous year. The reduction was due largely to a drop in the units for hogs and milk cows.

UREA CUTS FARM FEED COSTS

If you're a livestock producer you know that feed is one of your most costly production items. That's why urea has become so popular as a feed ingredient with many of your counterparts across the Nation. It's usually cheaper than oilmeals and can be used with relatively poor quality feeds to get acceptable gains when livestock returns are low.

Urea is a nitrogen compound which ruminants can convert to protein. It furnishes no energy, vitamins, or minerals. Ordinarily, 1 pound of urea plus 6 pounds of corn (or other equivalent feed grain) is used in place of 7 pounds of 44 percent soybean meal or cottonseed meal.

In some supplemental rations, molasses is substituted for feed grains, particularly if the quality of the other feeds available is relatively low.

During the 1962-63 feeding year (October 1-September 30), an estimated 5.6 million tons of high-protein feeds were fed to livestock, 8 percent more than a year earlier and 50 percent more than in 1955-56. Sales of urea for feed use (in terms of 44 percent soybean meal) rose at an even faster rate—from about 12 percent of all high-protein feed consumed by livestock in 1956 to about 20 percent in 1963.

An examination of typical prices for feed grains and oilmeals during 1951-64 (averages for corn and 44 percent soy-

High-protein animal units—livestock numbers weighted by consumption of high-protein feeds—declined about 1 percent from 1963-64 to 1964-65. Units from dairy cattle and hogs declined; units from beef cattle and poultry rose slightly.

Roughage-consuming animal units—livestock numbers weighted by consumption of roughages, including pasture—remained about the same in 1964-65 as in 1963-64.

The grain-and-roughage consuming animal units—livestock numbers weighted by consumption of all feed, including pasture—slipped about 1 percent last year from 1963-64.

bean meal at Chicago, sorghum grain and cottonseed meal at Fort Worth) reveals why urea was able to make such inroads in the high-protein feed market. Such prices indicate that with the exception of 1956, the urea-corn mixture held a price advantage over soybean meal-corn. The urea-sorghum grain mixture had a price advantage over cottonseed meal in all 12 years.

During October-December 1963, the advantage in favor of feeding urea-corn was as much as \$26.65 per ton compared with soybean meal-corn, and as much as \$21.30 per ton compared with cottonseed meal. (Urea was priced wholesale at 5 cents per pound, or \$100 per ton, in these calculations.)

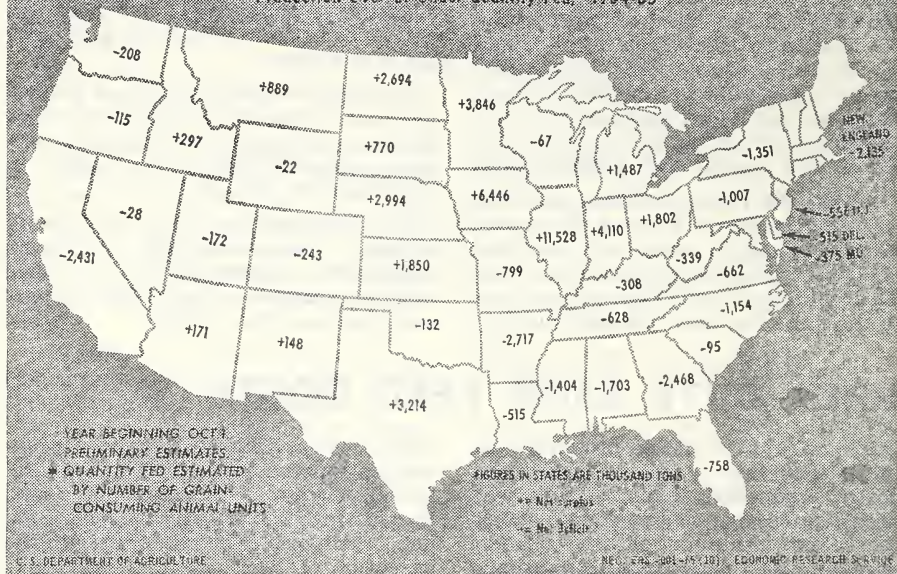
The data on actual feed use of urea at present is rather limited. But, using what information is available, it appears that by 1970 at least 300,000 tons of urea could be used for livestock feed. This is equivalent to about 1.6 million tons of 44 percent soybean meal—and to about 20 percent of projected consumption of high-protein feed in 1970.

Part of the limitations on making an accurate estimate of the further rise in feed use of urea is due to a probable change in the price. It is quite possible that prices for urea may be reduced as much as 40 percent within the next 10 years as the number and size of plants manufacturing it rise.

Earl F. Hodges
Economic Research Service

EXCESS OR DEFICIENCY OF FEED GRAINS

Production Over or Under Quantity Fed, 1964-65



HOW DOES YOUR STATE RANK in supplies of feed grains? Although feed grains are grown, by and large, in all States of the Union, some areas that are major producers of livestock must buy part of their corn, sorghum grains, oats, and barley elsewhere.

During the 1964-65 feeding year (Oc-

tober 1-September 30), Illinois had the largest surplus of feed grains, over 11.5 million tons. Iowa was next with more than 6.4 million.

States with the biggest deficits during 1964-65 were Arkansas with 2.7 million tons, Georgia with 2.5 million, California with 2.4 million.

Spring Seeding Plans . . . Clover Good Choice

There'll be more white clover seed and slightly less Ladino clover seed on hand this fall than last. Although production of white clover seed this year has been estimated to be down 10 percent from 1964, and that of Ladino seed is down 9 percent, the carryovers of each are up 34 percent and 15 percent, respectively. As a result, the supply of white clover seed, at 10,111,000 pounds, is 7 percent more than a year ago; that of Ladino seed is 7,180,000 pounds, 2 percent below the 1964 level.

Production of white clover seed this year has been forecast at 5,278,000 pounds, compared with 5,867,000 pounds in 1964. The 1965 acreage of white clover seed for harvest is around 25,300, down 1 percent from last year. The av-

erage yield per acre is estimated at 209 pounds—yields averaged 230 pounds in 1964.

Indicated production of white clover seed in the Pacific Northwest (Idaho and Oregon) is down 8 percent from 1964. Production in Louisiana is estimated at 450,000 pounds, 29 percent below the 1964 figure. Acreage is down in Louisiana and Oregon and yield is lower in Louisiana and Idaho.

Output of Ladino clover seed in California is forecast at 4,640,000 pounds. Last year's revised estimate of production is 5,120,000 pounds. The average yield per acre is estimated at 320 pounds this year, the same as the 1964 average, but acreage for harvest is down over 9 percent from last season.

ANHYDROUS AMMONIA

Can Be Cheaper Source of Nitrogen

To choose anhydrous ammonia or not to choose anhydrous ammonia as a source of nitrogen. If that's what is on your mind, here are some of the pros and cons:

Cost of materials. Prices for anhydrous ammonia vary widely from one area to another, and even to some extent within areas. In the Southeast prices are relatively high, ranging from \$115 to \$165 per ton. This is probably due, at least in part, to the rather small volume of most purchases in the Southeast. Prices in the Midwest and far West are usually from \$105 to \$130.

Remember, too, that in some cases you can get a discount if you purchase a large volume of anhydrous ammonia, buy it off-season, and pay cash.

Cost of application. This is the big stumbling block in using anhydrous ammonia. Although the cheapest source of nitrogen available, anhydrous ammonia must be handled as a liquefied gas and kept under considerable pressure. As a result, farm storage is often necessary, "nurse" tanks are needed to service field operations, the application is complicated, and the equipment more costly than that needed for solid fertilizers.

The cost of farm storage for anhydrous ammonia can be nominal if a sizable volume is handled. Although farm storage tanks may range in size up to 30,000 gallons, the most common sizes in areas where anhydrous ammonia is widely used are 6,000 and 8,000 gallons. Economists have figured the average annual costs of such tanks to be around \$325.

If storage tanks aren't used, a "nurse" tank is needed to haul the ammonia from some central point to the farm. The expense involved varies with the length of haul. In addition, the cost of the ammonia is likely to be higher when bought in smaller "nurse" tank quantities. The typical costs for a 1,000 gallon nurse tank run about \$195 annually.

The annual costs of operating the equipment to apply the anhydrous am-

monia are more difficult to figure. The ammonia is frequently applied in conjunction with some other field operation, or in irrigation water. However, for purposes of illustration, the cost of applying the ammonia as a single operation, either preplant or sidedressing, would amount to 66 cents per acre.

Total costs. To get an idea of how anhydrous ammonia compares with other common sources of nitrogen, here's a cost comparison with ammonium nitrate, the cheapest solid source: Storage, handling, and hauling (8,000-gallon storage tank and two 1,000-gallon nurse tanks)—anhydrous ammonia \$726.30, ammonium nitrate \$349.14; application costs (two pieces of four-row equipment, power, and labor)—\$710.50 and \$641.14; material costs—\$4,287.20 (46.6 tons at \$92 per ton) and \$9,179.28 (115.9 tons at \$79.20 per ton). The totals—\$5,724.00 and \$10,169.56. Costs per acre—\$6.73 and \$11.96. Costs per pound of nitrogen—8 cents and 13 cents.

Stocks of Hops Rise Sharply

Brewers, dealers, and growers held some 22,140,000 pounds of hops (including the equivalent dry hops held in the form of extract) on September 1. This is 16 percent above holdings on September 1, 1964, and 34 percent greater than September 1, 1963, stocks. Of the total stocks on hand, 94 percent was held by brewers with the remaining 6 percent about equally distributed between growers and dealers.

Brewers' holdings of hops on September 1 (including the equivalent dry hops for the extract on hand) were up 22 percent from last year and 41 percent above the 1963 level. Stocks in the hands of dealers (640,000 pounds including the extract equivalent) were 37 percent less than a year ago and 11 percent below September 1, 1963. Current holdings by growers, at 610,000 pounds, were down 39 percent from 1964.

Grady B. Crowe
Economic Research Service

COMPUTERS . . . FARM 'BRAIN' POWER

How'd you like to have a computer at your disposal? It's not as farfetched an idea or as far away as it may seem. Computers are already widely used by many industries and agriculture is learning to make good use of them on a selected basis.

A computer is useful simply because it can perform hundreds and thousands of mathematical calculations in a fraction of the time it would take the brightest mathematician to do them on paper. Its potential use to you as an individual farmer is to combine all the facts and figures about your business and come up with the most profitable production alternatives and management practices. For example, the computer analysis of your operation might disclose that you would make more from existing land and capital by changing your crop and livestock organization or your use of fertilizers and machinery.

In order to come up with the most profitable alternatives for a given farm operation, the computer must be given a wide range of detailed information. Specialists who have been trained in computer programing set this information up in a special way. Some of the

details that would be given the computer include technical information developed by scientists on crop variations, crop response to fertilizers and chemicals, effects of different feeds and feeding rates on weight gains by livestock, and so on.

Others include the amount of time you have to devote to farming, the amount of hired labor you can use and its cost per hour, the cost of other inputs—feed, seed, fertilizer, feeder livestock, and the like—the prices of the commodities you produce, the amount of land and cropland available for production, soil moisture, nutrient level of soils, and so on.

Suppose you have a general crop-livestock farm producing corn, soybeans, and alfalfa hay and you feed out steers and raise hogs for market. The computer could find the most profitable acreage of each crop to be planted, the plant population to be attained and the rates of fertilizer application and pesticide treatment. In addition, it could reveal the number and type of livestock to raise or buy and the most profitable rations to feed them.

W. B. Sundquist
Economic Research Service

How To Computerize Your Farm Operation

If you're interested in obtaining a computer analysis of your farm operation, first of all, try the land grant college or university in your State. Fourteen agricultural extension services or experiment stations in the United States and one in Canada are providing some kind of computer analysis service at present, and they generally work in cooperation with the faculties at the land grant schools. Altogether, the services of these agencies are available to farmers in 24 States and several Canadian provinces.

However, the services provided differ widely depending on the State involved. In 20 of the States and in Canada, the service offered is an analysis of farm records and accounts. In three States, a specialized type-of-farm service is provided. For example, North Caro-

lina's computer analysis of farm operations is limited to dairy enterprises. In Arizona, the emphasis is on farms producing milk and eggs. However, services for general farm accounting and machinery and labor accounting are also offered. One other State is developing a system for general farm analysis.

Farm organizations also are investigating computer services for the benefit of their members. During 1964, seven State Farm Bureau offices provided financial analysis and tax accounting, eight offered farm management analysis and tax accounting, and one provided both services. Eight of the State offices used electronic equipment to process the information and all 16 offices charged for the service on a cost basis.

CITRUS CONTINUES RECOVERY

Production of citrus during the 1964-65 season totaled 7.7 million tons, 23 percent above the 6.2 million produced in 1963-64. The output of oranges went up 33 percent while that of grapefruit rose 21 percent.

Of the 121.4 million boxes of oranges produced during the 1964-65 season, 71 percent were grown in Florida, 26 percent in California, and 3 percent in Arizona, Texas, and Louisiana. Florida accounted for 78 percent of the grapefruit crop.

Florida's citrus production bounced back last season as trees heavily damaged by the December 1962 freeze continued to recover. Production in Texas

also was up from the previous season but continued well below the prefreeze level.

Processors used 58 percent of the citrus produced in 1964-65, compared with 54 percent of the 1963-64 crop. About 65 percent of the oranges, 47 percent of the grapefruit, and 39 percent of the lemons were processed into canned, chilled, and frozen products. The comparable figures the previous year were 60 percent, 42 percent, and 50 percent, respectively. Roughly 63 percent of Florida's orange crop was used for frozen concentrate last year, compared with 59 percent in the 1963-64 season.

TRUCKS BECOMING MORE IMPORTANT For Moving California's Produce

If any one State were to be designated the fruit and vegetable supplier for the Nation, California would easily be a leading contender. But with a rapidly growing population of her own, the Golden State also has a sizable market for produce, and other agricultural products, at home.

With large volumes of farm products to be moved within the State and across the country, it's not surprising that much of the truck transportation in California is used for this purpose. And, as is true for the country as a whole, trucks are gaining in farm traffic at the expense of the railroads. Between 1955 and 1963, the share of total fruit and vegetable traffic carried by trucks increased from 19.1 percent to 34.1 percent. During the same period, the share of exempt-farm-produce traffic shipped via railroads declined—from 77.4 percent to 63.4 percent.

A recent survey of truck transportation of exempt farm products in California indicated that shipments originating or terminating in California totaled 3.4 million tons, accounted for 4.2 billion ton-miles, and filled more than 200,000 truckloads. The commodities hauled were largely fruits and vegetables (40 percent of total interstate tonnage and 50 percent of the

ton-miles), processed poultry, grains, livestock, and hay.

Inshipments (livestock was the major commodity) accounted for 2.0 million tons. Outbound loads (mostly fresh fruits and vegetables) totaled 1.4 million tons.

A check of the destinations of outbound trucks loaded with fresh fruits and vegetables suggested that trucks tended to serve markets closer to the growing areas.

Another important characteristic of outbound loads was the large number that contained more than one commodity. A sample of records at border stations indicated that about 65 percent of all shipments contained 2 or 3 commodities, but more than 14 percent contained 10 or more different products. Occasional "drugstore" loads were made up of 20 different fruits and vegetables.

Seventy-four percent of all truck shipments involved more than one pickup and more than one delivery. In order to assemble a load, trucks averaged more than two pickups and traveled 122 miles.

W. Miklius
D. B. DeLoach
Economic Research Service

THE BALANCE SHEET

ASSETS

	Jan. 1, 1964	Jan. 1, 1965 ²
	<i>Billions</i>	
Physical assets:		
Real estate	\$150.7	\$159.4
Non-real estate:		
Livestock	15.7	14.4
Machinery and motor vehicles	24.1	25.2
Crops stored on and off farms ³	9.8	8.9
Household furnishings and equipment	8.6	8.6
Financial assets:		
Deposits and currency	9.2	9.6
U.S. savings bonds	4.2	4.2
Investments in cooperatives	6.6	7.3
	<hr/>	<hr/>
Total	228.9	237.6

¹ For 48 States. ² Preliminary figures. ³ Includes all crops held on farms and crops held off farms as security for CCC loans. ⁴ Nonrecourse CCC loans secured by crops owned by farmers and included as assets in this balance sheet.

⁵ Loans of all operating banks, the production credit associations, the Farmers

OF AGRICULTURE ¹

CLAIMS

	Jan. 1, 1964	Jan. 1, 1965 ²
	<i>Billions</i>	
Liabilities:		
Real estate debt.....	\$16.8	\$18.9
Non-real estate debt:		
Commodity Credit Corporation ⁴	1.9	1.5
Other reporting institutions ⁵	9.5	10.0
Non-reporting creditors ⁶	6.7	7.1
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Total	34.9	37.5
Proprietors' equities	194.0	200.1
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Total	228.9	237.6

Home Administration, and discounts of the Federal intermediate credit banks for agricultural credit corporations and livestock loan companies. ⁶ Loans and credits extended by dealers, merchants, finance companies, individuals, and others.



Based on Information Available November 5, 1965

FED CATTLE PRICES

Fed cattle marketings and prices next year will depend largely on the number of cattle placed on feed this fall and during the first half of 1966. Placements in the fourth quarter aren't likely to be any larger than in October–December 1964, but those in January–March are likely to be larger. And marketing weights are expected to rise. On balance, fed cattle prices are likely to continue strong in 1966 and average about the same or slightly higher than in 1965 as increased supplies of fed beef are offset by smaller supplies of non-fed beef and consumers maintain their demand for beef.

HAY SUPPLY

Rainfall over much of the country late in the summer improved prospects for this year's hay production. The crop, estimated on the basis of October 1 indications, will total 123.2 million tons, 6.9 million above 1964 and 1.7 million more than the previous record crop in 1962. The gain this year is due largely to record-high yields—the acreage harvested is only a shade above a year ago. Yield per acre is estimated at 1.81 tons, 6 percent higher than in 1964 and 4 percent above average. The larger crop more than offsets the 3.3-million-ton reduction in May 1 stocks, giving a total supply of 139.5 million, 3.6 million above 1964–65, and little above average.

DAIRY RECEIPTS

Cash receipts from farm marketings of milk and cream (all 50 States) are expected to approach \$5.1 billion in 1965, about 1½ percent above last year's record of \$5.0

billion. Despite this gain, dairy receipts are likely to be a smaller percentage of total cash receipts from all farm marketings than last year—13.1 percent, compared with 13.6 percent in 1964. Farm production expenses also are expected to rise—but the gain in gross dairy receipts should more than offset any increase so that net receipts are likely to exceed those of 1964.

EGG PRICES

The average price received by farmers for eggs in 1966 may not change much from the 33 cents per dozen currently estimated for 1965. However, the seasonal price pattern next year is likely to be much different. Strong prices are expected early in the year, compared with last season's pattern, reflecting the shrinking volume of egg production and substantial Government purchases of dried eggs in November, December, and January. Monthly egg prices to producers in January–March are likely to average around 5 cents a dozen above a year earlier when they fell to 30.7 cents.

WOOL PRODUCTION

Wool output next year is expected to be slightly below 1965 because of a continued gradual decline in sheep numbers. The January 1, 1966, sheep and lamb inventory is estimated at about 26.5 million, down from 26.7 million a year earlier. Shorn wool production in 1966 is estimated at about 212 million pounds, grease basis. This compares with an estimated 213 million pounds in 1965.

Fewer Potatoes Sold Fresh . . . More Processed

Movement of potatoes to fresh market from the 1964 crop totaled 127.0 million hundredweight, 13 percent less than a year earlier. The quantity processed for food products (excluding starch and flour) was 66.4 million hundredweight, 7 percent larger than in 1963.

The reduction in sales for table use was about in proportion to the drop in production during 1964—53.1 percent of the crop was sold for fresh use compared with 53.9 percent a year earlier. In contrast, the proportion used in food processing (excluding starch and flour) rose to 27.8 percent during the 1964

season from 22.9 percent during 1963.

Use of potatoes for starch and flour and sales for livestock feed dropped sharply last year from the 1963 level. The volume fed on farms and losses from shrinkage and decay also were reduced sharply. The quantity used for food on farms where grown continued to decline, but more potatoes were used for seed from the 1964 crop than from 1963 output.

Potato chips and shoestring potatoes were the leading processed products last year. Some 28.8 million hundredweight, 8 percent more than a year earlier, were used in these products.

FAMILY-OPERATED COTTON FARMS

Can Do Well With Adequate Capital

There's a lot of talk nowadays about how big a farm operation must be to produce efficiently and earn a reasonable profit. The pessimists take the view that the one-man farm hasn't a chance. They're due for some eye-opening. Several new studies have shown that with adequate capital the one-man farm can be as efficient as any larger size operation, and perhaps more so. Irrigated cotton farms in the Texas High Plains are a case in point.

The study of the economies of size (linear programming of hypothetical farms using advanced technologies) on the irrigated cotton farms indicated that a 440-acre operation (140 acres of cotton) managed by one man with a set of six-row machinery could achieve an average cost of less than 71 cents per dollar of gross income. (The farm plans also included soybeans and grain sorghums. The cotton was irrigated three times after planting. The soybeans were irrigated four times and the grain sorghums two or three times after planting.)

The one-man operation was compared with several larger farm sizes, up

to a five-man farm with more than 1,700 acres of farmland including 550 acres of cotton. None of the larger sizes were capable of achieving lower costs than the one-man operation.

In becoming larger, farm operations don't necessarily acquire lower average costs or greater efficiency. But they can often earn greater profit. The 440-acre one-man cotton farm, as it was set up, could return almost \$60,000 in gross income. Net profit, or return to the operator for his management, would be \$17,400. This profit is over and above a return to the operator for his labor (\$2,569) and interest on the capital invested in the farm.

In comparison, the five-man 1,700-acre farm would gross \$235,000 and produce a net profit of \$67,500, some \$50,000 more than the one-man operation. But expanding an operation to this size would involve hiring more men, acquiring much more land, and generally getting into more management problems than the typical farmer might find to his liking.

J. Patrick Madden
Bob Davis
Economic Research Service

COTTON YIELDS BOOST CROP . . . AGAIN AND AGAIN

As of October 1, the 1965 crop of all kinds of cotton was estimated at 15,132,000 running bales, about as large as the 1964 crop of 15,148,000 bales. Of the total, upland cotton accounts for 15,050,000 bales; American-Egyptian for 82,500 bales.

The large crop estimated for 1965 is the result of record-high yields; cotton acreage is down about 3 percent from last season. The estimated yield per harvested acre for the 1965 crop is 534 pounds. This is 3 percent above the previous record high of 517 pounds for both the 1963 and 1964 crops, and is up 70 pounds from the 1959-63 average. Yields are above the 1959-63 average

in all major producing States except North Carolina and New Mexico. New yield highs are expected in Arkansas and Texas.

Due to the large crop of upland cotton this season, the carryover next August 1 (1966) may reach a record high 15.7 million bales. (The previous high was 14.4 million in 1956.) Disappearance of upland cotton during the 1965-66 crop year is estimated at 13.5 million bales, up 3 percent from 1964-65. The 1965 crop estimate of 15.0 million bales and the August 1 carryover of 14.0 million add up to a total supply of 29.2 million bales for 1965-66 (including imports and city crop).

Here's How to find the number of bushels of shelled corn or grain in a bin:

For a rectangular bin use: $0.8 \times \text{length} \times \text{width} \times \text{average depth in feet} = \text{bushels}$
Suppose your crib is 18 feet long and 12 feet wide. It's filled with shelled corn to an average depth of 8 feet. The problem is worked like this: $0.8 \times 18 \times 12 \times 8 = 1,382$ bushels

For a round bin use: $0.6283 \times \text{diameter} \times \text{diameter} \times \text{average depth in feet} = \text{bushels}$
If your crib is 12 feet 5 inches in diameter and filled to a leveled depth of 6 feet 4 inches, the problem is worked as follows (12 feet 5 inches is 12.4 feet and 6 feet 4 inches is 6.3 feet): $0.6283 \times 12.4 \times 12.4 \times 6.3 = 609$ bushels

MILK MAY TRAVEL . . . WHEN IT DOES, PRICES USUALLY RISE

The cost of transportation makes a big difference in milk prices. As a rule, dealers' buying prices for milk tend to rise as the distance from the major supply areas widens.

Higher costs (of labor, equipment, and the like) for transportation firms boost hauling charges. However, as transportation methods improve, geographical differences in prices tend to decline. These two movements have been offsetting each other for years.

A recent study of the geographic structure of milk prices revealed that during 1964-65 prices rose an average of 18.2 cents per 100 pounds with each 100 mile increase in distance from Eau Claire, Wis., the usual starting point for comparing milk prices. Actual prices in the study generally varied more or less than the average. This was due to the relatively large size of production and shipping areas (the average price was based on specific shipping points), the widely scattered production and marketing areas, the restrictive or encouraging effects of institutional and regulatory arrangements, the difference in products classed as "fluid" in various markets, and the problem of inter- and intra-market price differences due to the size of market areas.

In contrast to class I prices, blend prices during 1964-65 increased an average of 15.6 cents per 100 pounds with

each 100 miles from Eau Claire. Distance affects blend prices less than those for class I milk. The price of milk used in manufactured products bears little relationship to distance.

Floyd A. Lasley
Economic Research Service

PROMOTION PAYS

Does it pay to promote retail sales of milk? A recent 2-year experiment in one State and five Federal-order markets (conducted by USDA in cooperation with the American Dairy Association) indicates that it does.

In the experiment, three levels of expenditure for milk promotion were tested—the present level used by the ADA (2 cents per capita annually), a medium level (15 cents per capita above the present level), and a heavy level (30 cents above the present level).

Of the two increases tested, the medium level of promotion was most profitable. It increased sales by an average of 13,000 pounds per day per market, or 4.5 percent. The added income to dairy farmers was \$398,580 (the increased quantity of milk sold times a weighted average price differential between class I and II milk in the six markets). The cost of the promotion was about \$237,530, so the net return was \$161,050, about 68 percent on the investment.

MEET THE STATE STATISTICIAN . . . CLARENCE WHITE



Today Clarence E. White is the State statistician in charge in Idaho. In part his success is a tribute to a vanishing institution—the one-room country school.

His first success was completing the eight grades, of the little one-room school on the family farm near Farmersville, Ill., in only 6 years. When he graduated it marked the end of 31 consecutive years that a member of the immediate White family had attended the same school.

Although he always had an aptitude for mathematics and statistics, he concentrated on a life-long interest, agriculture, while at the University of Illinois.

White's earliest work with USDA was on the Corn Borer Quarantine Program while he was at college. By 1935 he was working in the Statistician's office in Illinois. He took graduate courses at three colleges to develop his skills as a statistician and remained in the Illi-

nois office until World War II made an infantryman out of him.

He was transferred to Washington, D.C., for 2 years after the war to work with livestock and poultry statistics. Promotion to second in charge of the Oregon field office came in 1948, and 3 years later he was appointed to his present position in Idaho.

His wife of 30 years, the former Ruth Porter of Montgomery County, Ill., has a good idea of what her husband's job is all about. She once worked for the Crop Reporting Board in Washington, D.C., while White was in service.

White finds Idaho a State of fascinating facts:

- Idaho gets little rainfall (from 25 inches a year to less than 8). It ranks fourth in number of acres irrigated and second in the proportion of all land in farms under irrigation.

- Agriculture is the State's leading industry with these four leading commodities of recent years—cattle, potatoes, wheat, and dairy in that order.

- Crops are grown at elevations of 800 to 5,000 feet above sea level. As a result, growing seasons range from 70 to more than 160 days long.

- Idaho is the home of the famous Russet Burbank potato that gourmets relish for baking. The importance of this is reflected by the scrutiny that the trade keeps on the progress of the Idaho crop. Acreage, production, and stocks estimates, issued by the Crop Reporting Service, are watched closely.

An early frost or rumors of it starts White's phone ringing with calls from the Red River Valley, Chicago, New York, and Maine. Contrary to what some uninformed people believe, White's office (as do the offices of the other State statisticians) plays a major role in squelching wild rumors about crop quality being lowered by natural disasters. Such assurance in this instance helps keep prices from dropping and good markets from losing interest in the crop.

As the farm sector of the total population declines and public interest shifts urban-ward, Americans tend to forget the important role agriculture has played in the development of the Nation. And we also forget the important events in agricultural history that enabled us to break record after record in farm productivity and release billions of man-hours of farm labor to business and industry. Just to refresh your memory, here are only a few of the important "dates to remember":

1785—The Philadelphia Society for the Promotion of Agriculture, and the South Carolina Society for Promoting Agriculture and Other Rural Concerns, organized.

1793—The cotton gin invented.

1810—The first American agricultural periodical, the "Agricultural Museum," began publication.

1819—Jethro Wood patented an iron plow with interchangeable parts.

1825—Erie Canal finished.

1834—McCormick reaper patented.

1839—\$1,000 appropriated for Patent Office to gather agricultural statistics.

1842—First grain elevator (Buffalo, New York).

1862—

The Homestead Act.

Department of Agriculture set up (cabinet status came in 1889).

The drive for agricultural education culminated in the passage of the Morrill Land Grant College Act.

1867—Grange organized.

1890—Babcock test for butterfat developed.

1896—Rural Free Delivery started.

1908—President Roosevelt's Country Life Commission established.

1914—Smith-Lever Extension Act.

1916—Federal Farm Loan Act.

1926—First hybrid seed corn company organized.

1928—12,000 cooperatives in the country.

1933—First Agricultural Adjustment Act approved.

1936—Great Plains Committee appointed by President Roosevelt.

1954—Public Law 480, providing for food shipments overseas, approved.

1965—Appalachian Regional Development Act passed.

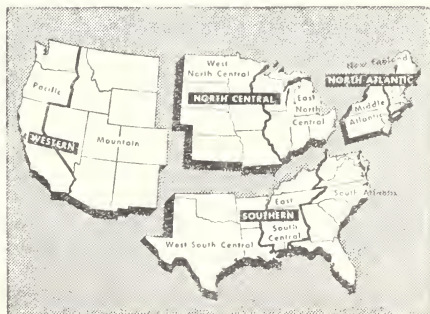
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